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            RAW SEQUENCE LISTING              DATE: 09/19/2000
            PATENT APPLICATION:  US/09/297,648    TIME: 18:20:31

            Input Set : N:\COPIES\!SEQLIST 08-28-00.TXT
            Output Set: N:\CRF3\09192000\I297648.raw

   4 <110> APPLICANT: Williams, Lewis T.
   5         Escobedo, Jaime
   6         Innis, Michael A.
   7         Garcia, Pablo Dominiguez
   8         Sudduth-Klinger, Julie
   9         Reinhard, Christoph
  10         Giese, Klause
  11         Randazzo, Filippo
  12         Kennedy, Giulia C.
  13         Pot, David
  14         Kassan, Altaf
  15         Lamson, George
  16         Drmanac, Radoje
  17         Crkvenjakov, Radomir
  18         Dickson, Mark
  19         Drmanac, Snezana
  20         Labat, Ivan
  21         Leshkowitz, Dena
  22         Kita, David
  23         Garcia, Veronica
  24         Jones, William Lee
  25         Stache-Crain, Birjit
  27 <120> TITLE OF INVENTION: Novel Human Genes and Gene Expression
  28         Products II
  30 <130> FILE REFERENCE: 2300-1481
  32 <140> CURRENT APPLICATION NUMBER: 09/297,648
  33 <141> CURRENT FILING DATE: 2000-03-10
  35 <150> PRIOR APPLICATION NUMBER: 60/072,910
  36 <151> PRIOR FILING DATE: 1998-01-28
  38 <150> PRIOR APPLICATION NUMBER: 60/075,954
  39 <151> PRIOR FILING DATE: 1998-02-24
  41 <150> PRIOR APPLICATION NUMBER: 60/080,666
  42 <151> PRIOR FILING DATE: 1998-04-03
  44 <150> PRIOR APPLICATION NUMBER: 60/080,515
  45 <151> PRIOR FILING DATE: 1998-04-03
  47 <150> PRIOR APPLICATION NUMBER: 60/080,114
  48 <151> PRIOR FILING DATE: 1998-03-31
  50 <150> PRIOR APPLICATION NUMBER: 60/105,234
  51 <151> PRIOR FILING DATE: 1998-10-21
  53 <160> NUMBER OF SEQ ID NOS: 5252
  55 <170> SOFTWARE: FastSEQ for Windows Version 4.0
  57 <210> SEQ ID NO: 1
  58 <211> LENGTH: 273
  59 <212> TYPE: DNA
  60 <213> ORGANISM: Homo sapiens
  62 <220> FEATURE:
  63 <221> NAME/KEY: misc_feature
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                    RAW SEQUENCE LISTING              DATE: 09/19/2000
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                    Output Set: N:\CRF3\09192000\I297648.raw

        64 <222> LOCATION: (1)...(273)
        65 <223> OTHER INFORMATION: n = A,T,C or G
        67 <400> SEQUENCE: 1
W--> 68 gtggtttctt agcatgatgg tgtatgtatg gggtaatgga aannnnnnna aanttacngg      60
W--> 69 agngnancaa acangngcac nnngngaata actanannna annccnaaan gatgcacnac      120
W--> 70 aanacccatn tnntnatngc cntnncatnn annntanatt ttcncanntt ctnanaatcn      180
W--> 71 naccttcnnn cnnnnntccn ctntnntnnt cacnccttnn cnnnttnnca ntatnnactn      240
W--> 72 anancntctn nanncaanan tnnntctatn tac                                  273
        74 <210> SEQ ID NO: 2
        75 <211> LENGTH: 300
        76 <212> TYPE: DNA
        77 <213> ORGANISM: Homo sapiens
        79 <400> SEQUENCE: 2
        80 gtttttcgaa gatcaactca agaagcaaga gttagcccga ggtcaaatgc gaagtcagca      60
        81 aacctcaggg ctgtcagagc agattgatgg gagcgctttg tcctgctttt ccacacacca      120
        82 gaacaattcc ttgctgaatg tatttgcaga tcaacctaat aaaagtgatg caaccaatta      180
        83 tgctagccac tctcctcctg taaacagggc cttaacgcca gctgctactc taagtgctgt      240
        84 tcagaattta gtggttgaag gactgcgatg tgtagttttg ccagaagatc tttgccacaa      300
        86 <210> SEQ ID NO: 3
        87 <211> LENGTH: 294
        88 <212> TYPE: DNA
        89 <213> ORGANISM: Homo sapiens
        91 <220> FEATURE:
        92 <221> NAME/KEY: misc_feature
        93 <222> LOCATION: (1)...(294)
        94 <223> OTHER INFORMATION: n = A,T,C or G
        96 <400> SEQUENCE: 3
        97 ggggattcat aattccagac aggtagagaa cggtttattt tatgtagaga cagagtctcg      60
        98 ctctgtcgcc aggctgaggc gggagaatca cttgaacctg ggaggtggag gttgcgctga      120
        99 gctgagatca ttacactgca ctccagcctg ggcaacagag tgagactatg tctcaaaaaa      180
W--> 100 aaaaaaaaaa aaaaaaaann nnnnnnnttn aaanntntng ggggnctnnt nncnnaaanc      240
W--> 101 caancttnan aaaanccttn gnnnatttgg nnnaaccccc anttaaangg cggg             294
        103 <210> SEQ ID NO: 4
        104 <211> LENGTH: 300
        105 <212> TYPE: DNA
        106 <213> ORGANISM: Homo sapiens
        108 <220> FEATURE:
        109 <221> NAME/KEY: misc_feature
        110 <222> LOCATION: (1)...(300)
        111 <223> OTHER INFORMATION: n = A,T,C or G
        113 <400> SEQUENCE: 4
W--> 114 cggcaaaact ngganggang cgancgtngg gcnanacccn tgtttttgan gccnggggccc     60
W--> 115 tnttgtangg ggcggntttn tgntgcngtn ctttnanacn ttttgagntn naaaaggnta     120
W--> 116 angnntnaan ttcngtncct tttgaacccn gatntnntcn naaaattncc cttncctanc     180
W--> 117 aggangnttt tgggnttgna tttgnntann ccngntcntc tttctggttt tgcctgaaca     240
        118 ccaagtagct tcataatcaa agggtcattt tctggtttgt atcagaccgt atttataaag     300
        120 <210> SEQ ID NO: 5
        121 <211> LENGTH: 285
        122 <212> TYPE: DNA
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       123 <213> ORGANISM: Homo sapiens
       125 <220> FEATURE:
       126 <221> NAME/KEY: misc_feature
       127 <222> LOCATION: (1)...(285)          /
       128 <223> OTHER INFORMATION: n = A,T,C or G
       130 <400> SEQUENCE: 5
W-->   131 caattagntt annntcgncc cntgcnnttc canctnggnn naccccatat ggaacatgtt      60
       132 aaaaaaaaaa gccaggccga gcgtgttggc tcacgcttgt aatcccagca ctttgggagg     120
       133 ccgaggcggg tggatcacga ggtcaggaga tcgagttcca tcctggctaa cacagtgaaa     180
       134 cgtgtttta ctaaaagtac aaaaaactag ctgggcgtgg tggcaggagc ctgtagtccc     240
       135 agctactcgg gaggctgagg caggagaatt gcttgaaccg gggag                     285
       137 <210> SEQ ID NO: 6
       138 <211> LENGTH: 131
       139 <212> TYPE: DNA
       140 <213> ORGANISM: Homo sapiens
       142 <400> SEQUENCE: 6
       143 gctactcggg aggctgaggc aggagaatcg cttgaaccta ggaggcatag gttgcagtga      60
       144 gctgagattg caccactgca ccccagcctg ggcaataaga gtgaaactcc atctcaaaaa     120
       145 aaaaaaaaaa a                                                          131
       147 <210> SEQ ID NO: 7
       148 <211> LENGTH: 287
       149 <212> TYPE: DNA
       150 <213> ORGANISM: Homo sapiens
       152 <220> FEATURE:
       153 <221> NAME/KEY: misc_feature
       154 <222> LOCATION: (1)...(287)      /
       155 <223> OTHER INFORMATION: n = A,T,C or G
       157 <400> SEQUENCE: 7
W-->   158 atataggntt ttannaatna nannntggtg ngntaaagan tnantangnt tttgctgntg      60
W-->   159 nattttaggn cnaaaaaatt tnanatttnn tnggnantna aggaaaangg gnnttttgnt     120
W-->   160 angntgcctn ancnnacnng nangttcnaa aaaccccngt ttnaaacngn gccncaggnt     180
W-->   161 ttnnnannnn acagatattc tggttccaga tgtcttgtaa gttaacctgc ctccatttcc     240
       162 ctttctgtaa agcaaaataa tgtttacacc taatctgtct ctcaggg                   287
       164 <210> SEQ ID NO: 8
       165 <211> LENGTH: 300   '
       166 <212> TYPE: DNA
       167 <213> ORGANISM: Homo sapiens
       169 <220> FEATURE:
       170 <221> NAME/KEY: misc_feature
       171 <222> LOCATION: (1)...(300)     /
       172 <223> OTHER INFORMATION: n = A,T,C or G
       174 <400> SEQUENCE: 8
       175 gaaaattatc tcagtgaacg aggatgtcac tcttagatca gccctcgata gaaatctgaa      60
       176 gagtgctgtg accgctgctt tcctcatgct ccccgaaagc ttttctgaag aagacctctt     120
W-->   177 catagagatt gccggtctct cctattcagg tgactttcgg atggtggnnn nnnnnnatga     180
W-->   178 atcctacntg agctatgttc nngcccggaa nataacgaac ttgattggng ctncttnncc     240
W-->   179 cacngctctt ggagattccn gacttnnnnt atatgacnct nnagcactgg catnaacttg     300
       181 <210> SEQ ID NO: 9
       182 <211> LENGTH: 300
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183 <212> TYPE: DNA
184 <213> ORGANISM: Homo sapiens
186 <400> SEQUENCE: 9
187 gtgcaccctt ttgtattaaa cactgcaagg gtgatgcagg ggagcaggaa agccatccta    60
188 aactcactac tgagtacgat tcagtatgtt cctgtggatg tctgctgtga ctaatataaa   120
189 tttcttgcag aatcagctac acttaattat gttgctgata gacaagcatc cacgcttcag   180
190 ctggcactaa gtgttttcat tgtaggatca gcagcaggtt aaagactgaa cggttagtga   240
191 agacaaatgt cttaagaggc tgcgatgtct aggttgggct tgtgacttct tagtggccta   300
193 <210> SEQ ID NO: 10
194 <211> LENGTH: 296
195 <212> TYPE: DNA
196 <213> ORGANISM: Homo sapiens
198 <220> FEATURE:
199 <221> NAME/KEY: misc_feature
200 <222> LOCATION: (1)...(296)  /
201 <223> OTHER INFORMATION: n = A,T,C or G
203 <400> SEQUENCE: 10
204 gccatgtgag gacataggga gaaagcagcc accattggca agccaagaga gagccctcac    60
205 caggaacgat tggaccagca ccttgatctt ggattttcta gcctccagaa cttacagtac   120
W--> 206 gggtggctgt nnnnnnnnnn ngnttctgac naggtgnnac actnnnnctt ccgtgntctn   180
W--> 207 tnactgnnnt cnntcngctg cngnntctgg acntccagag gttcnatgcg cnatcaggac   240
W--> 208 nnnttgctat anccccttgct cacgatgagn actntgactt tgtgngatgn ccgact      296
210 <210> SEQ ID NO: 11
211 <211> LENGTH: 300
212 <212> TYPE: DNA
213 <213> ORGANISM: Homo sapiens
215 <220> FEATURE:
216 <221> NAME/KEY: misc_feature  /
217 <222> LOCATION: (1)...(300)
218 <223> OTHER INFORMATION: n = A,T,C or G
220 <400> SEQUENCE: 11
221 gagaaacccc gcctctacta aaaatacaga aaattagcca ggcatggagg cacatgccta    60
222 taatcccagc tactcgggag gctgaggtag gagaatcgct tgaatccggg agctggaggt   120
223 tgcagtgagc caagatcgca ccattgcact ccagcctggg caacaagagc gaaactccat   180
W--> 224 ctcaaaaaaa aaaannnnnn nnnnnnnggg atgatnancn tgganctgnn tnttttttaaa   240
W--> 225 cgtngttttt ngangcttna aactntnaan gctttnatat aangntntca nctgtatgtt   300
227 <210> SEQ ID NO: 12
228 <211> LENGTH: 300
229 <212> TYPE: DNA
230 <213> ORGANISM: Homo sapiens
232 <400> SEQUENCE: 12
233 aaggagtcac ccctgggtca cccaagctga gacatcagtt ggtggttggt cagaacttgt    60
234 gcccaaatat gctgagtcag cggctctgcc cgggcccaaa tgctgagtca gcacctctgc   120
235 ccggggcagtc tgcaggctgg ccctacctttt gctttctgcc tgtggttcct atcagggcac   180
236 gcacttcagt tctgttgggc agggagacgt gcatcagact ctctccaggg catatgtgct   240
237 gtcttgcgct tgcgcgtggc ctcccaaacc cctagggata cctggggcca gctgggcagt   300
239 <210> SEQ ID NO: 13
240 <211> LENGTH: 300
241 <212> TYPE: DNA
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                    Output Set: N:\CRF3\09192000\I297648.raw
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242  <213> ORGANISM: Homo sapiens
244  <400> SEQUENCE: 13
245  gagggatgaa aatgagccct gggaggggagg aagggacgag gagggggtggc tgcatgttac     60
246  cgtcccctac ctctcccccac gtggagggtg gagcagttat gagggaggaa gtcaactgct    120
247  gttcagcctc agaataaagg tgccgttcac tggctcagtt acctcctgtg taccggcatc    180
248  ttgtgttggg aatgttcccc cctccctagg gaccaaggac caccccctaca aaaagagtaa    240
249  tggttgggtg atactccctc aagccaaaga ggagctcccc aacctgttct agggacccag    300
251  <210> SEQ ID NO: 14
252  <211> LENGTH: 300
253  <212> TYPE: DNA
254  <213> ORGANISM: Homo sapiens
256  <400> SEQUENCE: 14
257. cccacaagag gtggggccct tgttgaacac aatgatcaag ggccgataca actagcctgc     60
258  cagggggtcaa ggcctcctgc caggtgactg ctatcccgtc cacaccgctt cattgatgag    120
259  gacaggagac tccaagcgct agtattgcac gctgcactta atggactgga ctcttgccat    180
260  ggcccaggag tcaggtgttt ggagcgaggc agggcagttg gcactccact cctatttgga    240
261  gggacttcat acccttgcct cttgtgcccc agcaccttct ctctctgccc cccgcctaaa    300
263  <210> SEQ ID NO: 15
264  <211> LENGTH: 126
265  <212> TYPE: DNA
266  <213> ORGANISM: Homo sapiens
268  <220> FEATURE:
269  <221> NAME/KEY: misc_feature
270  <222> LOCATION: (1)...(126)
271  <223> OTHER INFORMATION: n = A,T,C or G
273  <400> SEQUENCE: 15
W--> 274  gggaaaanng nnanaccngt gcnttggaaa nntttggnga annntccctn anatgaggta     60
W--> 275  gcaaaanccg cagactggan aaangtgtca aaacttttnt aaacctctct gggtctnana    120
W--> 276  cattnt                                                              126
278  <210> SEQ ID NO: 16
279  <211> LENGTH: 300
280  <212> TYPE: DNA
281  <213> ORGANISM: Homo sapiens
283  <400> SEQUENCE: 16
284  agaagttcta gcacatctta atttccttaa tagtttaatt gatgaagagc attgatgaag     60
285  agttaggagg tctccctttg tacctacatt ttccgctttt ttagaatgag aagatgagaa    120
286  cgacctccag ttcacatgta cgggtgctgt gaggatccag taggggagat acagtgctca    180
287  gcaccaagca ggtgcaagtg agcacaatcc aattttacat caggttaccc ctccaggaca    240
288  gttgctttga cgtggaaggt agagagggag ttgaaaggag ggtttgcatg gttggcagag    300
290  <210> SEQ ID NO: 17
291  <211> LENGTH: 281
292  <212> TYPE: DNA
293  <213> ORGANISM: Homo sapiens
295  <220> FEATURE:
296  <221> NAME/KEY: misc_feature
297  <222> LOCATION: (1)...(281)
298  <223> OTHER INFORMATION: n = A,T,C or G
300  <400> SEQUENCE: 17
W--> 301  agggatacgt gttgttntaa naagtgannn nnnngcntnc anggtgncng tcantcctat     60
```

F.Y.I.

Please Note:
Use of n and/or Xaa have been detected in the Sequence Listing. Please review the Sequence Listing to ensure that a corresponding explanation is presented in the <220> to <223> fields of each sequence which presents at least one n or Xaa.

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L:68  M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:1
L:69  M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:1
L:70  M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:1
L:71  M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:1
L:72  M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:1
L:100 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3
L:101 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3
L:114 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4
L:115 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4
L:116 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4
L:117 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4
L:131 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:5
L:158 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:7
L:159 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:7
L:160 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:7
L:161 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:7
L:177 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:8
L:178 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:8
L:179 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:8
L:206 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:10
L:207 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:10
L:208 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:10
L:224 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:11
L:225 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:11
L:274 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:15
L:275 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:15
L:276 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:15
L:301 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:17
L:302 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:17
L:303 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:17
L:304 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:17
L:305 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:17
L:394 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:24
L:408 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:25
L:409 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:25
L:410 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:25
L:411 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:25
L:438 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:27
L:439 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:27
L:440 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:27
L:453 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:28
L:454 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:28
L:455 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:28
L:456 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:28
L:457 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:28
L:482 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:30
L:483 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:30
L:484 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:30
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L:485 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:30
L:523 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:33
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